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JUNE

1940

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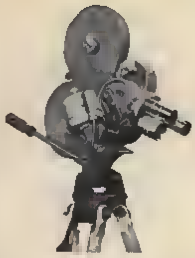

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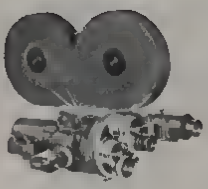

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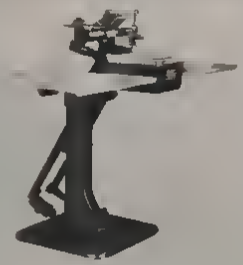

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ON THE COVER

DIRECTOR George Sidney called a halt in the shooting of Metro's "Annie Get Your Gun" to give Betty Hutton (Annie) chance to practice on her shootin' for a scene—which also provided still man Eddie Hubbell opportunity to shoot Betty, Sidney and rest of crew with his camera. In center (with pipe) is George Sidney, and at his right, Charles Rosher, A.S C, director of photography whose camera and lighting genius added sparkle to this hit M-G-M production. Others are (top, L. to R) John Nickolaus and Milford Cline. At bottom (back to camera) is Jack Aldworth, and Henry Imus

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★

AMERICAN SOCIETY OF CINEMATOGRAPHERS

FOUNDED January 8, 1919, The American Society of Cinematographers is composed of the leading directors of photography in the Hollywood motion picture studios. Its membership also includes non resident cinematographers and cinematographers in foreign lands. Membership is by invitation only.

The Society meets regularly once a month at its clubhouse at 1782 North Orange Drive, in the heart of Hollywood. On November 1, 1920, the Society established its monthly publication "American Cinematographer" which it continues to sponsor and which is now circulated in 62 countries throughout the world.

Dominant aims of the Society are to bring into close confederation and cooperation all leaders in the cinematographic art and science and to strive for pre-eminence in artistic perfection and scientific knowledge of the art.

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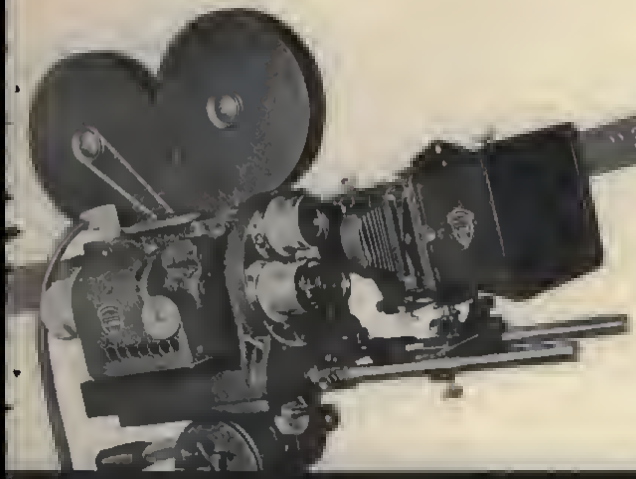

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ASC BANQUET, May 1st, honored retiring president Charles G Clarke (left, standing) shown here chatting with guests Left to right are Al Santell, producer; Arthur Edeson, Society V-P; John G. Capstaff, Eastman Kodak Co.; Fred Jackman, Executive V-P of Society; and George Seaton who directed "The Big Lift."

PRODUCTION of feature films in Hollywood Studios reached 46 for month of May — a new high for the year. Of 46 features, almost 30 percent were being shot out of town, resulting in the greatest exodus of directors of photography from Hollywood in years — all on active assignment.

Almost the entire Fox stable of cameramen were away from the studio on location filming. Leon Shamroy, A.S.C., was in New Mexico on "Two Flags West;" Edward Cronjager, A.S.C., was in Georgia on "I'd Climb The Highest Mountain"; Harry Jackson, A.S.C., is still in the Philippines, shooting "American Guerillas In The Philippines"; Charles Clarke, A.S.C., embarked for France May 1st to shoot background material for "On The Riviera", John Boyle, A.S.C., was in Japan on backgrounds assignment for "Call Me Mister," soon to go into production on the Fox lot; Joseph McDonald, A.S.C., was in New York on "Fourteen Hours," and Winton Hoch, A.S.C., was filming "Halls Of Montezuma" in Technicolor at Camp Pendleton, Calif.

Many of M-G-M's directors of photography were on location, too. Bob Surtees, A.S.C., sailed for Italy April 26th, to prepare shooting on Metro's big production of the year, "Quo Vadis?"— to be filmed in Technicolor. William Skall, A.S.C., followed Surtees two weeks later and will handle 2nd unit camera on the same production. George Folsey, A.S.C., was in Colorado shooting location scenes in Canon City for "Vengeance Valley"; Harold Rosson was filming scenes in Indianapolis, Indiana, for "To Please A Lady"; and Charles Rosher, A.S.C., was in Hawaii directing the Technicolor photography on "Blue Lagoon." Ray Rennahan, A.S.C., was also there for a week on second unit for the same picture.

Elsewhere, Jack Greenhalgh, A.S.C., was on location in New Mexico on the Irving Allen production "New Mexico," suffered serious injury when he was trampled by a horse, and was hospitalized. Lester White, A.S.C., replaced him.

Tom Tutwiler, A.S.C., was in San Antonio, Texas, with two camera ships for R.K.O.'s "Jet Pilot."

Floyd Crosby, A.S.C., was shooting "The Brave Bulls," in Mexico City for Columbia.

Bob DeGrasse, A.S.C., was on location at Riverside, Calif., for Leo Productions' "The First Legion."

Hal Mohr, A.S.C., was in San Francisco for Fidelity Productions, shooting "Woman On The Run."

•

SIXTEEN MILLIMETER sound films will be made of activities of American Society of Cinematographers' June 5th meeting, according to program being arranged by Executive Vice-president, Fred Jackman. On exhibition will be the new Berndt-Bach Cine-Voice 16mm. single system sound camera, which will be used in filming in sound members and guests attending this meeting.

•

FRANK PLANER, A.S.C., who will have an article in the July issue of AMERICAN CINEMATOGRAPHER describing his use of Garutzo lenses exclusively in photographing three independent productions, is scheduled to give a technical address and film demonstration on the same subject at the July meeting of the American Society of Cinematographers.

•

SO SURE is CBS of color for television, it has prevailed upon producer of new series of Gene Autry films for TV to shoot them all in 16mm. color. Each film will run 27½ minutes, require 3½ days to make.

•

JOHN BOYLE, A.S.C., was re-elected last month to Board of Governors of Academy of Motion Picture Arts and Sciences as representative of the directors of photography in the industry.

•

JACK CARDIFF, A.S.C., completely recovered from an illness that confined him for several months in a Swiss sanitorium, is back in harness again, directing the photography on "Pandora And The Flying Dutchman," a Lewin-Kaufman production being shot in Europe.

•

ERNEST PALMER, A.S.C., embarked for Europe, middle of May, for an extended vacation.

•

VICTOR MILNER, A.S.C., leaves for Europe June 15th for a visit with his son, Victor, Jr., who's in the Air Force and stationed in Germany, and to explore a new motion picture project. While on a similar jaunt last year, Milner, along with his son, was taken into custody by the Russians, when they unintentionally crossed into Soviet territory; were later released.

•

GORDON JENNINGS, A.S.C., has returned to Paramount Studios as head of the Special Photographic Effects department.

•

STANLEY KRAMER has signed long-term deal for use of Garutso lenses. Kramer will use lenses in his next three productions, with options for further use on daily lease basis.

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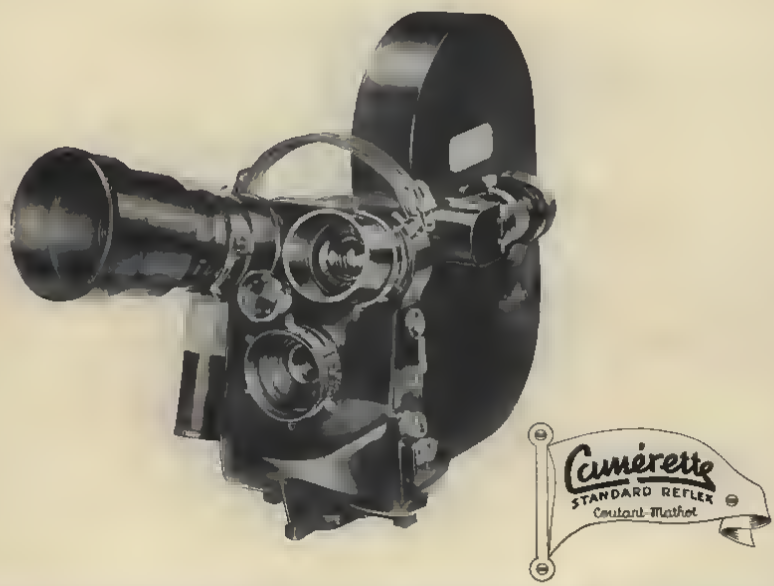

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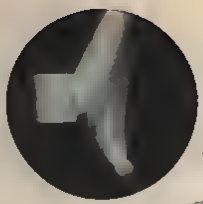

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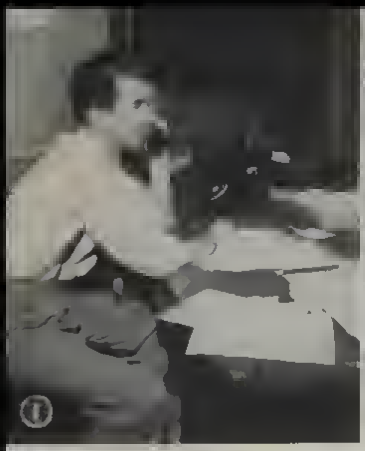


HERE IS a pictorial account of KTTV's television newsreel staff in action:

1—Staff head receives news tip, dispatches cameraman and assistant to scene

2—On the scene, photog and sound man get the story in pictures and sound, using Auricon single system camera

3—Film is rushed back to KTTV's lab for rapid processing in Huston developing machine

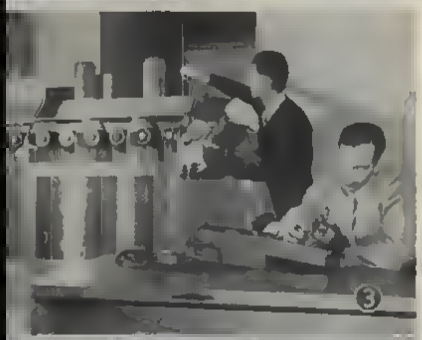
4—Developed film is screened for preliminary study by editors

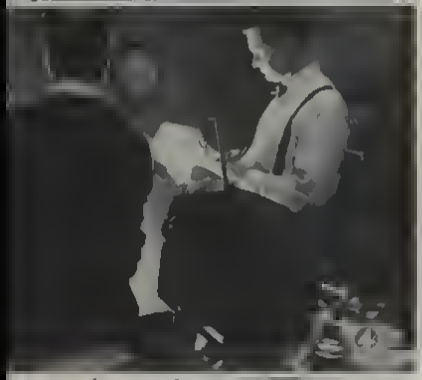
5—Film editor runs strip through viewer, gets it into shape for TV airing

6—Cutter trims film to fit timing indicated on continuity sheet

7—Titles and animation are shot in lab, dubbed in by film editor

8—Narrator rehearses telecast, using script and stopwatch, watching projected film as he talks





Television Newsreel

There's a future in television newsreels for 16mm. cinematographers. KTTV's staff of 4 cameramen, 7 technicians turn out one a day, five days e week.

By RALPH LAWTON

ONE EVENING early in March, Los Angeles residents were puzzled by a brilliant red glow spread across the city's eastern skyline. Television set owners in the area were not puzzled long. By flicking set dials to channel 11—KTTV—they saw firemen in East Los Angeles battling a huge oil storage tank fire responsible for the glow.

A few weeks earlier, these same set owners saw the Los Angeles Times annual sports awards dinner in progress at the same time radio was broadcasting the results.

What makes these telecasts unusual is that they weren't accomplished by live television camera pickup. They were done by film. KTTV's television newsreel cameramen, rushed to the scene, had shot the action, rushed it back to the station where the film was given quick processing and put on the air while the events were still in progress!

And the important story behind all

this is one that opens up a new field of employment for 16mm. cameramen.

Nightly, at 7:30 and at 10 o'clock, the KTTV Television Newsreel brings TV viewers the day's news on film. Its stalest story is seldom more than tweleve hours old. Most of its stories have occurred within four or five hours. Often it comes on with news only an hour or so old. Just as interesting as the story of how this is done is the story of why it is done. And we'll tell the latter story first.

It was nearly a year ago at a luncheon conference table when Norman Chandler, publisher of the Los Angeles Times and owner of 51 per cent of KTTV, announced that he wanted to turn the station into a "spot" news station. At that time west coast television stations were presenting the news in one of several ways. Some used an announcer who read the news while the camera was turned on him. Others used wirephoto still pictures which were kept on the screen for 45 seconds while the story was told. One station used teletype bulletins which were flashed on the screen. Two stations were using "canned" newsreels from the east with stories three to seven days old.

None of these methods had caught on.

The problem of presenting "spot" news in an interesting fashion was turned over to Omar Johnson, assistant to the president of The Times, and Harrison Dunham, KTTV station manager. They decided 16mm. cameramen working alongside of Times news photographers was the answer.

Bob Allison, Times police reporter and general assignment man, was taken off the editorial staff to head the project. Several months were spent in the groundwork. In October, 1949, Allison hired his first staff member. He was Ben

(Continued on Page 213)

FLOTILLA of fishermen's boats, fitted with gas lights for night fishing, furnished illumination for making movies for the first time of the famed Blue Grotto on the Isle of Capri, for Hal Wallis' "September Affair"

Italian Location Scenes Filmed By Gaslight

By VICTOR MILNER, A S C

Director of Photography European Sequences "September Affair"

GASLIGHT was used in shooting a sequence of scenes for a motion picture, probably for the first time, when the Hal Wallis production, "September Affair," was being filmed in Italy. And with excellent results. It all came about, not because of a shortage of electrical units, but because use of them in a marine cavern was impractical.

"September Affair" is an interesting picture in many ways, not the least of which is its travelogue-like treatment which will bring to theatre audiences actual views of many picturesque and historical places such as the beautiful city of Florence, Pompeii, Naples, Capri and the Blue Grotto. It was the last named that we filmed with the aid of gaslight.

The Blue Grotto is one of the most famous tourist attractions on the Isle of Capri, off the coast of Italy. Of almost indescribable beauty, it is a large cavern in the rocks skirting the sea. Entrance is made by rowboat from the sea, through a small opening in the rocks. Once inside, one may see, looking back toward the entrance, the colorful, fluorescent effect on the unusually blue waters — result of the sunlight filtering through between the rocks below the surface.

Because an important sequence in "September Affair" has to do with Joseph Cotten and Joan Fontaine looking over the sights of Southern Italy, I suggested to Wallis that we include shots of them visiting the Blue Grotto. I had carefully calculated the lighting and photographic requirements, and counted on using flares for illumination. When Wallis okayed the idea, I set out to locate a source of flares, and was told that the mayor of the town definitely would not permit use of lighted flares within the Blue Grotto, fearing they would mar the interior.

So that evening we sat on the veranda of the Caesar Augustus Hotel, watching dusk slowly descend over the harbor, and cursing the luck that

(Continued on Page 217)

The Infra-Red Photographic Evaluator

Selecting costumes and makeup that will register same tonal values on either Plus-X or infra-red film made easy with new electronic analyzer.

By STANLEY HORSLEY, A.S.C.
Supervisor Special Photography Universal-International Pictures

ALEXANDER VELCOFF and his Academy Award-winning electronic device for instant determination of photographic response of colors and materials when filmed with infra-red

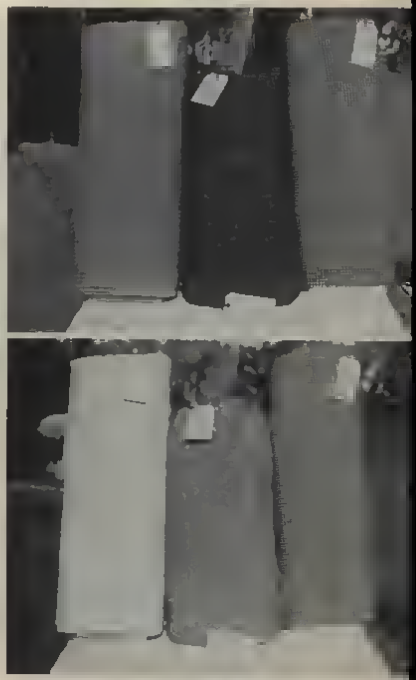
A MAJOR OBSTACLE in the use of infra-red film in motion picture production has been hurdled by Universal-International Pictures, thanks to development by one of the studio's technicians of a device affording evaluation (in advance of shooting) of makeup, costume materials and props in terms of photographic response with infra-red film. For developing the device, known as an Infra-red Photographic Evaluator, The Academy Of Motion Pictures Arts and Sciences this year awarded Universal-International's Alexander Velcoff a Class III Technical Award.

Universal, which has progressed farther in the use of infra-red film than perhaps any other major studio, ran into difficulties when filming "Sword In The Desert," one of its first feature productions in which infra-red was used extensively in shooting night scenes in daylight. The first rushes revealed a marked difference in color tone of uniforms made of black material, which appeared black when filmed with Plus-X but came up light grey when photographed in daylight with infra-red film. Also, makeup on some players appeared differently on infra-red film. All this resulted in difficulty for the editing department when attempting to intercut infra-red scenes with those shot on Plus-X.

The most prominent differences in tonal values appeared in costumes. A number of uniforms for soldiers had been made by the wardrobe department, which had used two different bolts of black cloth. When photographed, the penetrating infra-red film revealed the costumes in two different color values. It became the immediate problem of the wardrobe department to correct this situation. At first it undertook the laborious

(Continued on Page 211)

ABOVE PHOTOS show tonal rendition of dark suit photographed with Plus-X (left) and infra-red (right). With infra-red, suit appears grey — result of response of chemical components of fabric dyes which respond at particular frequencies.



STILL PHOTO tests show difference in tonal rendition of three different bolts of fabric when photographed with Plus-X (top) and infra-red (bottom).

Matching Location Footage With Studio Shots

Skillful keying of connecting shots with light and mood of location footage filmed overseas highlights photography of "Under My Skin."

By HERB A LIGHTMAN

FROM THE technician's point of view, "Under My Skin" is an outstanding production job, due to the skilled matching of European location shots with studio scenes To director of photography Joseph La Shelle goes the chief credit for expertly blending the main action, shot at 20th Century Fox studios, with location scenes filmed in Europe by two other cameramen. So perfect is the match that even an expert in this field would find it difficult to tell where the location footage leaves off and studio shots begin.

"Under My Skin," adapted from Ernest Hemingway's short story, "My Old Man," is a new 20th Century-Fox film that tells the story of an unscrupulous jockey who has been barred from American tracks, and is forced to seek refuge in Europe. He resumes his career in Italy, has to flee to France, and remains a double-crosser to everyone except his ten-year-old son and an entertainer in a cheap Paris cafe. The film faithfully follows Hemingway's fine short story, and is a well directed, sensitively acted production that scores heavily as entertainment in spite of its morbid ending

A camera crew headed by Dewey Wrigley, A.S.C., and Norbert Brodine, A.S.C., spent two and a half months in Paris last summer filming scenes for this picture at three French tracks—Maisons Laffitte Auteuil, and Chantilly Another camera crew headed by Wrigley spent two months in Italy filming the pastoral scenes which open the film, as well as background footage around the Merano race track This marked the first time in its century of existence that cameras were permitted on the famed Auteuil steeplechase track. For this production six cameras were kept in action at the track daily over a two-week period; 100,000 feet of choice race track shots were sent back to the studio as a result

"Under My Skin" demanded a total of 40 sets, including the interiors of jockey clubs at all of the above mentioned race tracks, railroad stations at Maisons Laffitte as well as Merano, and a half-mile track laid out on the back lot of the studio for matching shots of the race sequences. Studio-built settings used throughout the picture are authentically European and perfectly match the backgrounds of the location footage.

Casey Robinson, who produced the picture as well as writing the screen play, went to Europe to supervise the filming in both Italy and France. He was accompanied by Robert Snody, 20th Century-Fox Production Manager. They took wardrobes from the studio as well as stills of the principal players. They located doubles for these actors in Paris and in Rome.

The biggest problem in photographing studio scenes to blend with scenes shot in foreign locales is that of matching the quality and source of light in both footages. Very often the location scenes are made without the benefit of technical refinements available in the studio, which means that the closer shots filmed in the studio must match the location quality as closely as possible while at the same time achieving the amount of technical finish one expects from Hollywood major studio cinematography. Furthermore, due to the short schedule usually allowed for location filming, subject matter must be recorded when it happens whether conditions are ideal or not, and if the filming of one sequence continues over several days there is likely to be a great variation of conditions within the one sequence. This is exactly what happened during the horse race sequences, in which it was necessary to shoot a number of races over a period of several days in order to get enough footage required for a complete sequence.

In stating the general technical problem involved, director of photography La Shelle says: "When a picture is made in this manner, using long shots with doubles, plus a variety of background and process shots, it later becomes the task of the director of photography to keep the connecting shots in key with the light and mood of the location shots so that they will match and all tie together visually without jarring. How well he accomplishes this job determines whether or not the picture has a look of reality

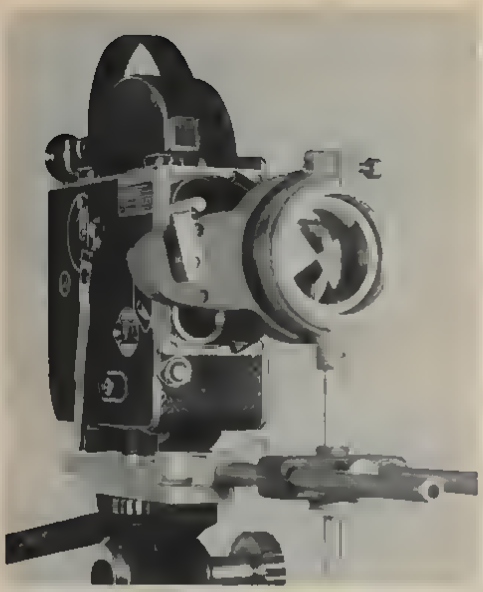
(Continued on Page 215)

GENUINE REALISM in scenes where background plates are employed depends on the director's skill in matching his lighting with that of the process plate footage

Optical Effects With Any Camera

New attachment for 16mm, 35mm, and television cameras employs prisms to make a wide range of special effects.

By IRVING BROWNING



TURNING small crank on Effects attachment, with camera running, produces unusual optical effects, depending upon prisms used in attachment Gadget will fit most all 16mm, 35mm movie cameras, also television cameras

EXAMPLE of one of many special effects possible with the Camart Optical Effects Unit Object is multiplied 4 times, the images rotating in a circle Split frame and other cinematic effects also are possible with the Unit

SINCE THE INCEPTION of motion pictures, special optical effects have played an important part in lending new dramatic emphasis to movies. Some of the very first effects were the fade and the lap dissolve Later, other effects were devised, many of them made in the camera by the cameraman as the picture was being shot Ultimately, the use of special effects became so important to motion picture production that each major Hollywood studio set up its own special effects department where, today, effects are made separately from the main production with equipment designed especially for the purpose

The independent film producer and the 16mm. and 35mm. commercial film maker, meantime, have often avoided the use of effects in their films simply because it meant farming this work out to specialists outside their organizations, usually at considerable additional expense. Now the making of many optical effects in the camera becomes feasible and practical again for these independent producers, thanks to a new device being marketed by The Camera Mart, Inc , New York City.

Tradenamed the Camart Optical Effects Unit and pictured in the illustration above, the gadget is attached to the camera and may be operated by the cameraman himself as he shoots. The Unit, which may be employed with almost any 16mm- or 35mm. motion picture camera—and with television cameras, too—consists of a base which fits between tripod head and camera and holds a prism housing before the camera lens A crank, extending from right side of housing, as shown, is operated by the cameraman to set prisms in motion to produce the desired optical effect. The crank may be turned in either direction and at any speed. A sample effect is illustrated in the film clip reproduced above. It consists of a figure reproduced in four identical images, each revolving and following the other in a circular motion

The prisms supplied with the Unit are ground to 2, 3, 4, 5, or 6 surfaces and are well defined to exacting tolerances. The prisms will produce from two to six identical images on a single frame of film, and the images can be made to revolve around each other. The five-surface prism, for example, will create four images revolving around a center image which is stationary. Other effects possible with this device are making objects appear elongated and thin, or short and squat Two prisms may be used in combination to produce an eight image result, or four still and four revolving images Still another use is to dissolve from one scene to a split image effect, then dissolve back to the regular scene.

A montage unit, which is part of the device, makes possible filming three different scenes on a single frame of film, each occupying one-third of the frame. This is done by setting the Unit to mask off a portion of the frame, then operating the camera to expose the remainder. The film is then wound back in the camera

(Continued on Page 208)

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When And How To Use Camera Angles

Used skillfully, they lend individuality to cine photography.

By PHIL TANNURA, A.S.C.
Director of Photography, "Customs Agent"

DRAMATIC, toward-the-sky angle of this shot gives it pictorial emphasis that would have been lost had the cameraman choosen to shoot down upon the divers from top of the diving tower

CAMERA ANGLES are a fundamental and important part of the practical task of filming good motion pictures. Essentially, the term "camera angle" refers to the position of the camera with relation to what is being photographed. There is—or should be—a definite relationship between the subject, the type of action, and the position of the camera. And this applies just as much to amateur motion pictures as it does to professional cinematography. Indeed, it should be one of the major studies of the serious amateur cine photographer if he expects to rise to higher levels of cinematographic work.

The most elementary distinction in camera-angles is between the long-shot, the medium-shot and the close-up. Of course, if you want to split technical hairs, you might name a flock of sub-varieties of each of these; but essentially, you'll still be dealing with close-up, medium shot and long-shot. The long shot is made with the camera far enough away from the subject so that the whole thing—subject and background—is fully shown in the picture. The medium-shot brings the camera closer—say close enough so that if you're filming people, you show about half the figure. The close-up takes both the camera and the audience close to the subject, so that if you're photographing a person, you fill the screen with his head and shoulders, or perhaps merely the head alone.

But that's kindergarten stuff; nearly every cine photographer knows what these shots are. Not so many, though, seem to know *how* to use them.

Well, in a long-shot, we show everything. If we're photographing people we show the people, and where they are in relation to their surroundings. In a medium-shot, we've moved up closer, to where we can get a better view of what's going on. In a close-up, we've brought our subject within arm's length.

It is almost invariably best to open a sequence with a long-

(Continued on Page 206)

HERE we have examples of typical long, medium and closeup shots—the latter shown being filmed by Richard Thiriat while on location for his award-winning 16mm color film, "Navajoland." Established practice is to open a sequence with a long shot, which sets the locale, then move in closer for more detail—finally moving the camera nearer for a closeup to capture subject or detail at close range. Using this one-two-three camera angle scheme, subject matter or important action is thus presented properly oriented for easier audience perception

COMMENTARY should be carefully worded to fit the picture, scene by scene — sequence by sequence. To do this properly, the exact length of each scene should be determined in terms of seconds.

Syncing Sound For Pictorial Harmony

Tips for amateur film makers in scripting and recording sound accompaniment for cine films.

By JOE P. GRAY
Washington Society of Amateur Cinematographers

WEBSTER DEFINES synchronization as, "concurrence of events in respect to time." Consider the synchronization of the earth with the moon. From the beginning of time, these two planets have been moving in their orbits at tremendous speed, yet remaining in perfect synchronization. For centuries to come, a full moon will appear every 28th day. A concurrence of events in respect of time gives man both day and night, winter and summer, at regular intervals. The universe, with all its planetary courses, is set to act in continuous harmony. Since synchronization is evident throughout our daily lives, why not apply it to our movies?

Suppose, for instance, an orchestra is playing a composition. Some of the musicians are playing it in march-time; the others are expressing themselves in waltz-time. What a bedlam that would be! So may the movie when little or no thought is given to synchronizing music and/or commentary in keeping with screened presentations.

When music, narration or both are used with the picture, and either or both are out of sync, it may be better to show the film silent. If music alone is the plan, then let the mood of it be in harmony with the picture on the screen. By that is meant, if the pace of the picture in one group of scenes is gay and lively—the music should also be light and allegro. On the other hand when the photography is in a low key, choose music of that mood.

In amateur movies, often one of the above described sequences is followed by the other. When that occurs, music appropriate for the first would be out of place if allowed to continue one instant into the second sequence. It would be out of sync with the photography. A discord between sight and sound would exist, noticeable to everyone. Interest in the picture might, therefore, be reduced.

People to whom the amateur exhibits his work are usually most kind, and nearly always state how much it was enjoyed, to one's face—but remember, these same people are accustomed to theatre presentations. For them, it is almost mandatory that a commentary accompany the film, otherwise how can a picture convey the thought intended by the producer? An extemporaneous commentary is, in general, not to be desired, unless the commentator is an especially gifted and witty speaker.

A commentary should be carefully worded to fit the picture, scene by scene—sequence by sequence. To do this properly, the exact length of each scene should be known in terms of screened seconds. Fitting phrases can be used to prolong a particularly interesting scene. Shorter periods of action or static may be concisely worded. A commentary, thus worked out, must be rehearsed until it can be given simultaneously with the action of the picture, distinctly and without a "flub."

One way to sync narration successfully with your film is to select certain "key words" in the script. Mark their corresponding frames on the film with a grease pencil. Upon projecting the film, these marks will readily be seen, indicating the exact time a key word should be spoken. It will be apparent how much uncertainty in word approach is eliminated by a flashing mark on the screen. It signifies just where to start a phrase in order to hit a desired "clinch." For example:

Scene 1.	A front lawn, showing walkway to a house, flowers in bloom, general sunny appearance.
Scene 2.	Man and woman step out of house door and continue down walk.
Scene 3.	Man opens car door and woman seats herself in car.
Scene 4.	Man closes car door and walks around car to enter from opposite side, but is frozen in his actions by what he sees.
Scene 5.	Flat tire.

Typical sync narration for above scenes: (Scene 1) "It was Easter Sunday, about ten o'clock in the morning, when (Scene 2) John and Mary realize they were about to be late for church. However, John is not one to forget a (Scene 3) gentleman's respect for his lady, even though a few precious seconds may be lost by his attentiveness. (Scene 4) It's such demonstrative actions that keep love in bloom, but—of all times, to have a (Scene 5) flat tire!"

(Continued on Page 209)

Maurer VERSATILITY on the job!

Gray-O'Reilly Studios of New York, shooting a scene for a magazine promotional film on homemaking, where once again the Maurer 16 demonstrates its adaptability to every kind of performance condition.

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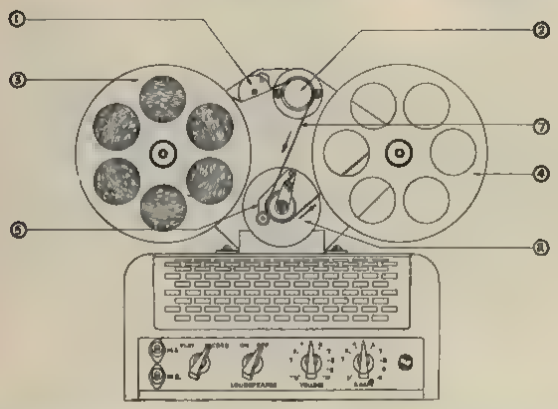


DIAGRAM of Scophony-Baird "Cine-Soundmaster," magnetic tape recorder-reproducer which may be coupled to most 8mm and 16mm silent projectors to provide synchronized sound with pictures. Components are (1) erase magnet, (2) recording-reproducing head, (3) tape supply reel, (4) takeup reel, (5) tape guide roller, and (6) capstan drive and flywheel

ALTHOUGH the need long has been voiced among movie amateurs in this country for a simple magnetic wire or tape recorder-playback unit affording synchronized sound for amateur films — a unit that could be coupled easily with any existing 8mm or 16mm projector mechanically or electronically — a British manufacturer is the first to recognize the amateur's needs.

Early in 1949, Scophony-Baird, Ltd., of London announced its Cine-Soundmaster, a magnetic tape recorder-reproducer which may be mechanically coupled to the mechanism of any projector by means of a flexible shaft.

The unit is described at length by K. G. Gould and R. I. T. Falkner, in *British Kinematography* for February, 1950.

Since the device is generally driven by a variable-speed projector there is no fixed tape speed, but the flexible driving shaft is always attached to a shaft on the projector which produces a speed of 1 turn per frame — usually the framing knob. In some cases, modifications to the projector are necessary to obtain a suitable drive source. Satisfactory adaptations have been made with more than 30 different makes of 8mm., 9.5mm., and 16mm. silent projectors as well as 16mm. sound projectors.

Component parts of the Cine Soundmaster, as illustrated here, consist of a takeup spool, a supply spool, a recording-reproducing magnetic head containing the electro-magnet, a permanent magnet for erasing, and a driving capstan with its associated flywheel and mechanical filtering device. The parts are assembled on a chassis which in turn is mounted on top of an amplifier. Circuit of latter is so designed that it serves dual function of recording and reproducing.

Tape used is standard quarter-inch coated with iron oxide. It is driven through a mechanism at three times film speed, i.e., approximately 15 inches per second with 16mm. film, or 21.6 inches per second at sound speed.

To make a synchronized sound track with the Cine-Soundmaster, the silent film is threaded in the projector and comparable start marks placed on the film and on the tape in the recorder. As the film is projected, commentary is spoken into the directional microphone. An extra input connection is provided in amplifier which permits channeling music into the track from phonograph records played on a separate reproducer.

Paramount Serving 25 TV Stations With Kinescope Film

Paramount Pictures is supplying more than 25 TV stations with kinescope recordings of high Hooperated shows emanating from the company's Hollywood video outlet, KTLA. This makes possible high quality programs on film at low cost to stations not linked by coaxial cable, and is potential source of significant revenue from company's activities.

Contest For Producers Of Professional Movies

Gateway Productions, Inc., 40 Fremont St., San Francisco, are conducting a prize film contest, offering prizes of $100, $200 and $500 to producers of educational and documentary films as incentive for more and better films. Entry blanks are available by writing the company.

1949 Tops '48 In Business Volume For Technicolor Corp.

Technicolor operations in 1949 topped the previous record year 1948 in volume, profit and dividends paid, according to report issued by Technicolor, Inc., and subsidiary Technicolor Motion Picture Corp. Last year more feature-length productions — 44 were produced in color by Technicolor than any preceding year.

Third Dimension Movies Demonstrated By Cinerama Corp.

Cinerama Corporation recently demonstrated for the press its three-dimensional process at Huntington, Long Island.

Pictures were shown on a 25-foot high concave screen. Three projectors were used, throwing an image from both sides and center of screen. A special 3-lens camera is used to photograph films for the Cinerama process, and is built to run at speed of 135 feet a second as compared to standard 90 feet per second speed.

New Film Editing Technique Cuts Time and Reduces Cost

George Amy, veteran film editor, now cutting "Sound Of Fury" for Robert Stillman, has evolved time and cost saving method of film editing, result of over 23 years experience in Hollywood cutting rooms. System requires only simultaneous cutting of picture and sound track prints and their splicing at that time, in order to run both simultaneously through a Moviola. Time saving is effected by thus being able to get feeling of entire sequence at once instead of going to projection room to have film and track screened. According to Amy, with this method complete rough cut can be ready in three or four days instead of usual seven or ten.

National Academy Of Sciences Elects Dr. C. E. K. Mees

For his services to science, Dr. C. E. Kenneth Mees, Eastman Kodak vice-president and internationally-known photographic scientist, has been elected to membership in the National Academy of Sciences.

Exhibit Of Scene Design Held For Television Industry

The first exhibit of scene design for TV ever to be presented took place April 21-23 at SRT Television Studios, a division of The School of Radio Technique, Inc., New York City. Event was held in conjunction with seminar on television and motion picture operations. On display was sample work of leading network and independent scene designers, which demonstrated how various problems imposed by limitations of TV camera are met.

Two outstanding features of exhibit were live camera demonstration of rear screen projections as TV backgrounds and first New York showing of CBS's color television system.

"Pan-Cinor"—Novel Variable-Focus Lens With Seven Elements

The French publication, *La Technique Cinematographique*, described in a recent issue a new variable-focus lens of simple mechanical construction—the Som Berthiot "Pan Cinor." Unlike other lenses of the type, the adjustable components do not move in relation to one another, five elements are stationary and two are mounted upon a single movable barrel. The first "Pan-Cinor" to be made available is for 16mm cameras and provides a variation in focal length from 20mm to 60mm., at an aperture of f/2.8. All components are coated.

Ansco Announces New 16mm. Color Duplicating Film

New Type 238 for making color dupe prints in 16mm. now available in Hollywood, Chicago and New York.

Ansco this month announced the availability in Hollywood, Chicago and New York of its New 16mm color duplicating film Type 238.

The American Cinematographer learned that Ansco has been carrying on "confidential" tests on Type 238 for nearly a year, and unofficial observers have indicated that the film has excellent definition as well as true color reproduction of the original.

Type 238 is designed to work with soft gradation color originals or masters. It has excellent keeping qualities. The film ships without the need for refrigeration or any special handling other than that which is considered good practice for the handling of black-and-white films. In this respect Ansco's new Type 238 is no different than the family of other Ansco Color films in 16mm. and 35mm.

With the announcement of Type 238, Ansco now becomes importantly associated with the manufacture of color films for professional use in both the 16mm and 35mm. fields.

During the last four years Ansco has brought out Ansco Color 35mm. Camera Film Type 735. This is a soft gradation reversal camera film which has found wide acceptance throughout the world. It has been satisfactorily used to photograph theatrical and commercial short subjects and features in Europe, India, Africa, Australia, England, the Philippines, Mexico and other parts of the world. All of the material so far used has been processed in the United States at either the Metro-Goldwyn-Mayer laboratories in Culver City, the Houston Color Laboratories in Los Angeles, or the Pathe Laboratories in New York City.

Type 735 may be printed on Ansco Color Release Film Type 732 or used in conjunction with Technicolor, Cinecolor and comparable color printing processes.

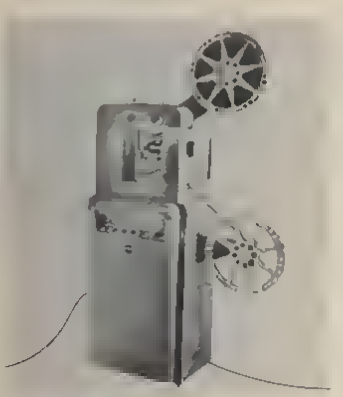
Ansco reportedly has made available to several studios in Hollywood samples of its new 35mm. complimentary negative and positive films.

These films have been subjected not only to extended photographic tests, but as well to rugged handling tests. One studio transported and shot the new Ansco negative on location abroad in the same manner as black-and-white film. The material was returned to Hollywood without benefit of refrigeration for processing. Examination of this color negative indicated no deterioration in any physical way, and its latent image quality was comparable with material exposed and processed in Hollywood. This also applies to the new Ansco Color Positive.

Ansco has in the last four years demonstrated its ability to manufacture films which have found wide acceptance within the industry. Because of the widening interest in color films in all fields of motion picture production and the additionally important part they will play with the advent of color television, top executives within motion pictures are watching with keen interest as well as anticipation the work of this important American manufacturer of photographic products.

Intermittent Sprocket Feature Of New Eastman Heavy Duty 16mm. Sound Projector

Following standard 35mm practice, an intermittent sprocket is used instead of a claw type, pull-down mechanism on the new Model 25 Eastman heavy duty 16mm projector. Positive and accurate film transport is provided by an eight-frame sprocket driven by an accelerated geneva star. The two interruption-per-frame shutter has a transmission potential of 65 percent.



NEW EASTMAN 16mm projector, Model 25, shown here with tungsten lamphouse, is a new auditorium-type projector giving greatly increased illumination, picture quality

To attain a new level of durability and quietness, the mechanism of the new projector is divided into two mechanically independent but interlocked assemblies: the intermittent assembly and the shutter-sprocket system. These are driven by separate synchronous motors. Individual motors also drive the blower, take-up and rewind.

Equipped with a 1000-watt, 10-hour tungsten lamp, projector delivers considerably more screen illumination than has been previously possible with 16mm. equipment, according to Eastman. It has also been designed for use with arc illumination under more stringent projection conditions. In the tungsten model, a dual lamphouse incorporated in projector prevents show interruption if a lamp blows.

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WHEN AND HOW TO USE CAMERA ANGLES

(Continued from Page 201)

shot. This "plants" the geography of the scene in the minds of the audience: and you've got to remember in any kind of film that although you, who made the picture, may have a clear idea of the general layout of the locale, your audience wasn't there and they probably won't be familiar with the arrangement of the place or the room. A good long-shot, held for a fair footage at the beginning of the sequence, will tell them where it is, and what it's like.

But in a long-shot you can't very well see the details of the scene, or follow the details of the action. If you want these details in real life, you move up closer. A medium-shot does this for the camera.

There are times when ordinary close approach is not enough to show the important detail of any thing or action. Then, in actuality, you try to get within arm's length of whatever you're looking at, and get a closeup of it. That's the closeup's primary function in movies.

Now, to bring this discussion to a more practical plane, suppose we're making a vacation-movie in Zion National Park. Still supposing, let's say we open with a pictorial long-shot of the Great White Throne. It shows the scene perfectly, including, in the middle distance, a car with some people around it. We don't know who they are, or what they're doing, but there they are. A medium-shot could follow, and show that they were Cousin Dick and his brother-in-law, and that Dick was doing something to the car. Coming nearer for a closeup, we learn that Dick is changing a tire. And if we want to come to an extreme, big-head closeup, we can prove that Richard is perspiring copiously!

The same thing applies to scenes in which we are more interested in what is being done, than we are in who is doing it. Suppose instead of Cousin Dick, we have an expert service-man at work: the long-shot shows where he is, the medium-shot shows who he is and what he's doing, and the closeup shows how expertly he's doing it.

Just which of these angles is best for any given scene can usually be determined by the idea we're trying to get across to the folks who see the film. If that idea is "where" or "what," the longer shots are best; if it is "who" or "how," closer shots are vital. Filming a big league ball game, a long-shot will show it's the Yankee Stadium—but only a closeup will prove that it's Joe DiMaggio batting, or show how he bats.

This business of picking camera-angles can do a lot more than this, however. How often have you seen pictures of people in dark clothes carefully posed in front of dark green shrubbery—or folks in light garments merged into light-colored backgrounds? Nine times out of ten, a little thought of camera-angles—selecting an angle that offers a properly contrasting background—will save a world of projection-room apologies.

And there are other embarrassments that can be avoided by similar thought of the camera's viewpoint. The other day, for instance, a friend of mine pridefully showed me a shot he had made of his wife. It was a nice shot, but it was just too bad that a nice, bushy palm tree in the background seemed to be growing straight out of her head! Two steps to the right or left would have eliminated the Zulu head-ornament. Another chap showed me a scene in which his girl-friend walked from her front door across the lawn and got into a car. She was really quite pretty—but I don't think she was nearly strong enough to do what the scene made her do: my friend shot straight across the lawn, and just as she entered the picture, a car went by on the cross-street at the corner. In the photo, the girl seemed to be pushing it before her like a baby carriage! Of course only a professional movie troupe can control traffic in the background and prevent inopportune cars from stealing the scene—but anyone can choose a camera-angle which does not show the cross-street.

The physical limitations of the amateur movie camera must be considered in camera-angling on some types of action. Especially fast-moving action. At normal speed, the shutter of the average home movie camera gives an exposure of from 1/24 second to 1/40 second, depending on the make of camera. This is hardly enough to "stop" really fast motion, so to get a satisfying, unblurred picture of a fast-moving object, we must resort to camera-angles. What actually causes the blur is not so much the actual speed of the object as the distance its image moves across the film during the exposure. If, for example, we are photographing an airplane, using a camera with a 1/40 second shutter opening and choose a camera-angle in which the plane moves directly across the picture, it is obvious that during our 1/40 second exposure, the image of even a slow plane is going to move quite a bit across our frame during the short interval the shutter is open. On the other hand, if

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The head, made of Dow Metal magnesium, weighs but 5½ lbs and is interchangeable with the Friction type head. It handles all types of cameras. Snap-on metal cranks control pan and tilt action from both sides. Worm-driven gears are Gov't spec bronze.

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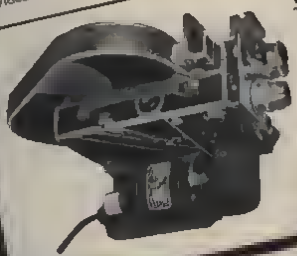

This motor will run in synchronization with either 16mm or 35mm sound recorders. It is provided with mounting platform which permits removal of magazine while camera remains mounted on motor. Drive coupling attaches to spring-steel drive arm of motor gear box. This assures that camera and is mated to single-frame shaft of camera mechanism cannot be damaged if a film jam occurs as the spring steel arm drive will shear. This is easily replaced. A knurled knob on motor armature permits rotating for threading. "On-Off" switch built into base. Platform base threaded for ¼" and ⅜" camera tie-down screws. Rubber covered cable with plugs included.

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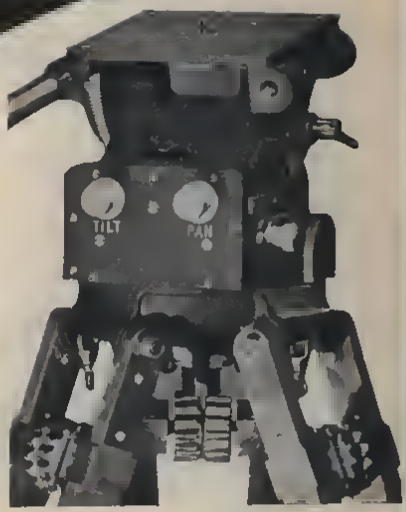

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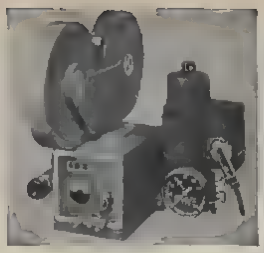

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we choose an angle at which the plane is moving toward the camera, its image won't spread itself over nearly as much of our frame during the exposure. Therefore, the best angle to use in getting shots of fast-moving objects of any kind is one at which they are coming toward the lens. In most cases, a ¾-angle is best, but for very fast-moving objects, it is often necessary to shoot "head-on," to minimize the blur. But if it is not possible to place the camera at such an angle—if you must shoot full broadside-on—you can still minimize blur by getting farther away from your subject. True, you will have a smaller picture of the thing, with a lot of background you may not particularly want; but since the image of the object is smaller, its movement across the frame will also be smaller, and the picture will be less blurred.

If you want your audience to understand your scene quickly and easily, shoot your scenes from simple, "head-on" viewpoints. If the action is in itself clear enough to get itself understood, then—and only then—is it safe to use unusual viewpoints or camera angles.

OPTICAL EFFECTS WITH ANY CAMERA

(Continued from Page 198)

with the lens capped or shutter closed, and the action repeated until all three sections of the film frame have been exposed.

Producers of 16mm commercial films, for example, may use this effects device in a number of ways to add a cinematic fillip to their films, or to secure eye-arresting effects for TV film commercials. The revolving image effect might be employed to concentrate attention on a sponsor's product with a multiple close-up. The split-stage effect can be used to center attention on three or four related activities at one time, where showing them simultaneously on the screen clarifies the operation for the audience or makes more clear the steps necessary in a complicated operation. Such treatment is ideally suited for training films, also.

It isn't difficult to imagine the impetus to a comedy routine that the multiple image effect could lend to a variety program on television — the vision of a drunk or the comedian "bopped" over the head; Ed Wynn with spots before his eyes which gradually metamorphose to images of a pretty girl, etc. The possibilities of this device for television cameras are tremendous.

But it's the 16mm. film producer who stands to effect marked savings in the use of the device. Through its use, costly effects made outside his studio are no

longer necessary, and he can now write special effects into his scripts that hitherto have been avoided because of the expense.

Cameramen and producers in the New York area are invited by The Camera Mart to drop into their offices at 70 West 45th Street for a demonstration of the Camart Optical Effects Unit. Those outside the area are invited to write them for more descriptive data.

SYNCING SOUND

(Continued from Page 202)

Absolute sync analysis of the above narrative and actions is as follows: Scene 1—Self-explanatory in the action, however, time of day, the exact day of the year, and the season are made known in a simple, concise manner. Scene 2—"John" is simultaneous with the very first frame that shows the man as he emerges from the door. The woman, being almost directly behind the man, will come into view when the word "Mary" is spoken. Since some cause must prompt any action, we state their intentions as they progress rapidly down the walk to the car. Scene 3—To say, "John opens the door for Mary" would be the equivalent of—"This is a horse," so we twist just a little politeness into the script, in order to prolong a necessary scene.

Remember, it takes a few extra seconds to open a car door, seat someone, and again start the swing of the door. For the scene we choose the key word to be "respect" and it is spoken as the car door is opened for the woman to enter. It draws attention to John and his gallant action, without specifying the action by name. In Scene 4—we select two key words. The first is "demonstrative," and the second is "but," and are explained thus. Since there was a scene change during the door operation, we again call attention to an action which must be completed, but from another camera station. Too, Old John is still in the highlight of his chivalry. "But," the second key word, is selected because that is the point where John freezes on the spot and stares. Scene 5, of course, would make anyone stare, and the key word could be none other than "Flat," and spoken at the scene change to the tire.

"Key" words serve to "clinch" the scenes, and give the observer a feeling of being right there on the spot—in other words, leading his thoughts, therefore, maintaining interest throughout the film. Better still, your words are pointing out that which you *desire to be seen* in the picture. Never leave your audience

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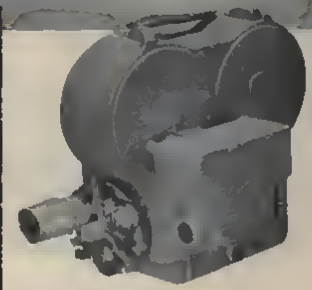

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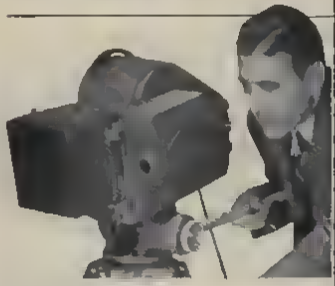

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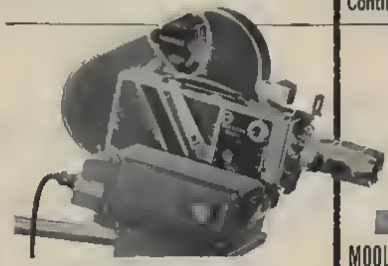

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to grasp what they can while a narration lags behind.

Probably every amateur movie maker seeing 35mm. productions, has occasionally noticed a little white or black circle flash in the upper right corner of the theatre screen. For those who have never noticed such, they are "cue" marks. These indicate sync points on the film, and are observed by the projectionist. If he misses one, you will certainly know it. If none are missed, the picture will continue smoothly. These marks simply mean "get ready" and "go" for a film change over.

In our films, a change-over is not necessary. We can, however, profit by using a similar cue system in synchronizing sound in its various forms. Small ink dots can replace previous grease pencil marks. Place them in the upper right corner of the frame for permanence. If care is used in placing these, you, no doubt, will be the only one ever to see them. They will be an aid as long as you use the same form of presentation.

For those who have a tape recorder, and also have a constant-speed projector, that is, a sound-on-film projector (no rheostat controlled projector will maintain constant speed), syncing music and narration is a matter of practicing the foregoing procedures until perfection is attained. Then, plug in the mike and record. When playing back your recording in sync with your picture, if one or the other of the two machines gains or lags, try these methods. When film is projected at 24 f.p.s. and is leading the tape recorder, trip the Sound-Silent Switch rapidly up and down. This will bring the picture back into sync. Conversely, if the tape is leading your film, trip the Off-On Switch of the tape machine until sync is attained. These operations will go unnoticed on the screen and sound system.

NOTE. Author Gray's advice on syncing sound with home movie first appeared in a recent bulletin of the Washington (D. C.) Society of Amateur Cinematographers, of which Gray is a member. We are indebted to the Society as well as to Mr. Gray for affording us opportunity to bring this highly instructive data to our cinefilmer-readers.—ED

MOVIE AMATEURS

Complete details of American Cinematographer's 1951 Amateur Film Competition will appear in the July issue. Next year, competition will be international in scope, with the best amateur movie makers throughout the world competing. Plan your entry now for this important amateur event and be sure to watch for full details in next month's issue.

★

INFRA-RED EVALUATOR

(Continued from Page 196)

task of recording chosen materials for costumes with a still camera—first with Plus X film, and then with infra-red, and comparing the resultant prints as a check on tonal variations. Obviously this was a tedious task, and a costly one. The problem intrigued Alexander Velcoff, assistant to Manny Spack, U-I's wardrobe supervisor, and being something of an amateur physicist with considerable knowledge of electronics, he set about to find a quick answer to what had now become an almost daily problem. Velcoff knew something about the extensive war-time developments of the Germans for detection of infra-red radiation and reasoned that an application of their methods would enable him to inspect fabrics and objects to determine fidelity of color or tone when viewed under infra-red light.

The heart of such a gadget required an infra-red image converter tube and these, Velcoff, found were unavailable in the United States, the government having declared all such tubes manufactured here "classified" for security needs. A further check by Velcoff revealed the British had produced such tubes and had disposed of a quantity in the U. S. to war surplus outlets. A number of these tubes were purchased from this source and Velcoff, aided by the studio's Special Photographic Department, proceeded with construction of his first infra-red photographic evaluator.

A brief description of the infra-red image-converter tube may be of interest. Actually, there is nothing novel in the principle of this tube which is, in effect, a form of photocell in which the anode is replaced by a fluorescent screen. During the war the main advance was in the direction of production design and technique. The tube envelope consists of an evacuated cylinder of Pyrex glass about 5 cm in diameter and 4cm. in length, with the plane end windows 2mm in thickness. A semi-transparent silver caesium oxide photo cathode, with photo-emissive sensitivity out to about 1.3 microns, is deposited on one end window by a technique similar to that employed in standard photocell activation. A Willemite screen deposited on a thin plane glass plate is mounted parallel to the cathode and separated from it by 5 mm. The screen may be viewed through the window remote from that carrying the cathode.

The evaluator, shown in an accompanying photo, consists of a tubular housing about 18 inches in length and 2½ inches in diameter. In the front of this tube is mounted a standard photo-

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Vatt Cowles, Flint, Mich., says "Film is GREAT. I was down there twice and I did not do so good."

Morgan Atkins Dallas, Texas, says "I am very well pleased. Your use of Pola Screen brings out hidden qualities that makes this an outstanding film."

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graphic lens in focusing mount. Within the tube, immediately back of this lens is a filter holder, then the infra-red image-converter tube. Then follows a set of image erecting lens elements, and finally the magnifying eyepiece at rear of tube. The image-converter tube is powered by 4,000 volts at 1 milliampere from a power pack mounted immediately beneath it and fed by 110-volt AC current. Two standard 110-volt infra-red lamps are mounted in swivel sockets immediately below and at the front of the evaluator device and furnish illumination for the object or materials to be surveyed.

Weighing but 17 pounds, the evaluator may be carried to any department or stage on the lot, permitting instant check of costumes, makeup or properties. Two additional models to be built will operate on current supplied by dry cells, affording use of the evaluator independent of 110-volt power supply.

In use, the evaluator is set up, plugged into the power source, and the lens focused on the object to be tested. Focusing and observation of the results is accomplished by looking through the tube eyepiece.

In explaining the evaluator's operation, Velcoff said: "Infra-red radiation falling on the cathode of the infra-red image-converter tube within the evaluator releases electrons which are accelerated by application of a high voltage to the anode. Here the electrons form a fluorescent image corresponding to the initial infra-red image. The brightness of any element of the fluorescent screen will depend upon the number of electrons impinging on that element of the screen, so that graduations in intensity of infra-red radiation falling on the cathode will be reproduced in the fluorescent image corresponding to the variations in infra-red reflectivity in the original scene.

"The image tube is an electronic lens whose element is sensitive in the infra-red region where the eye is not. The sensitivity of the human eye lies between 400 and 740 millimicrons. A caesium cell or a caesium-silver oxide photo cell is sensitive out to about 1200 microns, while film commonly used (Eastman infra-red negative type 1210) is sensitive out to about 920 millimicrons. The use of appropriate filters is necessary to cut off the extended sensitivity of the photocell beyond that of the type of film used, and also there is a filter used to confine sensitivity within the limits of the tube and to keep it from being actuated by ultra-violet light — comparable to the limits imposed upon the activation of the film used. A Kodak gray scale is used to compare the gray tones with those of the subject under test. By this method we are able to keep within the confines and limits of the working infra red spectrum. In the case of the fabrics illustrated here, the variations in reflectivity are caused by the response of the chemical compon-

BALLOON TIRES now replace small hard casters on 20th Century-Fox's tewaine steel parallels, affording greater mobility and effecting savings in production time. John Levin, studio's grip department head, is responsible for idea. Other studios reportedly are adapting the idea.

ents of the dyes that respond at particular frequencies."

The infra-red photographic evaluator proved a decided asset to both the wardrobe and makeup departments during the recent filming of Universal's "Winchester 73," in which considerable footage was shot with infra-red film. The studio is now able to check wardrobe costumes and fabrics far in advance of filming and to effect makeup tests sufficiently early to avoid costly delays on the set.

TELEVISION NEWSREEL

(Continued from Page 195)

Berg, many years manager of the Twentieth-Century Fox film lab, Far Eastern Theater lieutenant-colonel in charge of photographic units during the war, and recently technical director for J. Arthur Rank

To this combination of newspaper and motion picture experience were added men from the radio and theater newsreel fields. George Martin Jr., KHJ newscaster who put in 36 hours covering the Kathy Fiscus tragedy, was hired. Charles "Chub" Lehmann, 35 years a cameraman for Fox Movietone news, was brought in. Faced with a deadline because of commercial committments, the entire newsreel staff of 11 men was assembled, and within 12 days a complete motion picture laboratory was built inside a few plaster-walled rooms of an old building at the corner of 2nd Street and Broadway. Electrical and carpentry work in the lab was completed on November 20. The next day the staff moved in and went on the air that night with its first newsreel.

Of course there had been no time for dry runs with any of the nearly $15,000 worth of equipment that had been assembled. Naturally the men found "bugs" in nearly all of it. But these were ironed out during actual production. Compare this with a New York TV newsreel which went through three months of daily dry runs before hitting the air.

The success of the Los Angeles reel is best told in its ratings. Within two months after its birth the show had moved into the top ten bracket of multi-weekly shows in the Los Angeles area. Much of this success is rightly due to the Los Angeles Times. Without the news tip service supplied by the paper, the reel would lose its punch. The men responsible for the close liason between the paper and the newsreel are L. D. Hotch-

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kiss managing editor of The Times, and Bud Lewis, city editor.

To best understand how the newsreel is put together a description of the show itself is needed. The program is 15 minutes long. It contains 12 minutes of news, 30 seconds of main and end titles and two minutes of commercials. In news content it carries from 10 to as high as 19 news stories each edition. In length these stories vary from 20 seconds to 3 minutes.

The reel's contents differs from the theater newsreel in many ways, but mostly in timeliness and pictorial appeal. Hot news stories seldom hit motion picture theater screens in less than two to three days after they break. KTTV Television Newsreel breaks its stories the day they happen.

In regards to pictorial appeal, the reel lays less emphasis on this in its effort to bring viewers news and not just features. Much of the reel's contents consist of court stories, city legislation and public controversies. These stories lack pictorial appeal, perhaps, but they are news. And the reel carries them, using personalities, places and sound-on-film interviews to do it.

To round out national and international news, stills are employed. Allison and Berg have developed a means of moving the camera across the pictures (zooming in close, dollying back, panning) that gives life to stills and provides animation for eye appeal. For this, an Acme animation stand and camera is used. Following a plane crash in Dallas, Texas, the story was put on the air, using 13 wirephoto stills the day it happened. "Better than waiting three days for movie films to arrive," said Berg.

In addition to the staff mentioned, the reel employs a lab technician, three other cameramen, a film editor and narration writer. Duties of these men are clean-cut but because of the amount of film which must be produced every day each man is trained to fill in for other functions.

The cameramen use Bell & Howell Filmos, also an Auricon single system sound camera on assignments where sync sound is essential, as in interviews, etc. The lighter Filmo equipment also includes compact photoflood lighting units that bolt to the cameras and 50 foot cables affording plug-in to 110 volt lines at almost any location. Ben Berg, who supervises the technical end, soon will have portable battery equipment that the cameramen will strap around their waist. This will furnish power for special 30-volt photo lamps, thus making them independent of 110-volt power sources and broadening the scope of their filming activities.

Film used in the cameras is DuPont No 330 Panchromatic reversal, in daylight loads, perforated on one side for sound. The Filmo cameras, incidentally, have sprockets with one row of teeth to take this film.

Eventually, says Berg, all sound for KTTV's newsreel will be recorded on magnetic tape by machines completely battery-powered — thus further unshackling the cameramen from the limitations imposed where power lines must be tapped.

Important adjunct which makes this TV newsreel project feasible is the rapid processing which the film receives. A Houston automatic 16mm. film developer daily processes from 1500 to 2000 feet of film exposed by the cameramen, turning it out fully dried and ready for screening at the rate of 300 feet in 30 minutes.

To save time this film is often edited "on paper" before it even comes out of the processing machine. Scenes are timed and laid out in order so the narration writers can start to work before the film has been viewed. Another time-saver is the practice of starting assembly of the reel before all the stories are out. This enables one film editor to edit and splice late stories while another staffer is putting the reel together. These late stories are then spliced in before the reel is sent to KTTV for showing.

After assembly of the reel is complete, one rehearsal is held at the newsreel lab with announcer reading the narration. This gives staffers a chance to check position of stories, titles, commercials, cue marks, and synchronization of narration with scenes. Often, however, late-breaking news stories hold up final assembly to a point where such a rehearsal is not possible. Then the reel is aired "cold" while Allison and crew pray everything is in right. To date there has never been an upside-down title.

What's in store for the future?

Well, one thing clear is that within five years television news coverage will rank in importance with radio and newspaper coverage. TV viewers today don't expect up-to-the-minute coverage. But when television gets its growth, they will. And this coverage will be supplied in the same way the KTTV Television Newsreel is doing it now. On-the-spot coverage with 16mm. cameras. Perhaps 35mm. later, but it will be a long time before the average television station can afford this luxury of better picture quality.

Meanwhile, a vast new field is opening up for the 16mm. cameraman. And it calls for more than ability to handle a camera. The television newsreel staffman must also be a reporter. For he tells his story with film and camera just as the news reporter tells his with words — but with no chance to re-write. END

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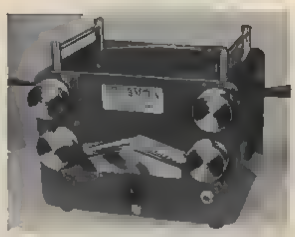

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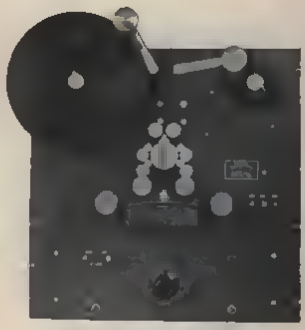

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MATCHING LOCATION FOOTAGE

(Continued from Page 197)

as well as artistry." In the opening scenes the two principals are seen trotting along a road in the Italian Alps. A couple of very good doubles were used for this in Italy. Later on the two leads in the picture were filmed in a close dolly shot along a road in Sherwood Forest in California. Following scenes were played under a real tree at Sherwood, and the concluding scene in the sequence was a shot made in Europe showing the doubles making an exit. In all of these shots, great care was taken to match the lighting conditions exactly.

Another sequence in the picture shows a car driving up to a French cafe. The Paris location shots were made with the cafe completely in deep shadow, which meant that when the semi-long shots of the cafe were shot on the studio stage, La Shelle had to light the exterior to

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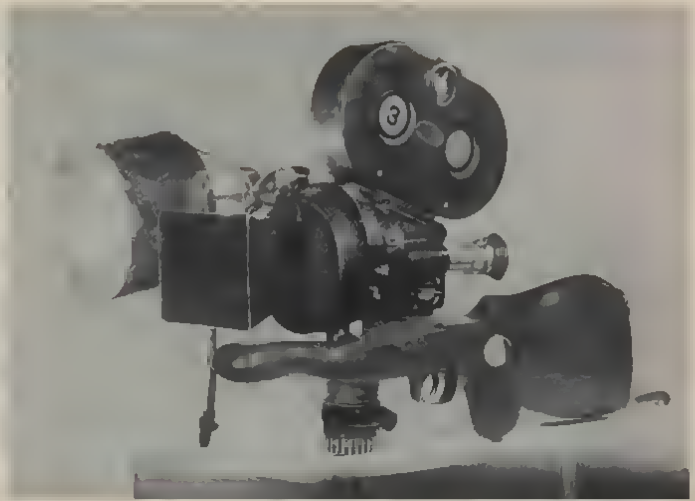
simulate the deep shadow. As he moved in for closer shots of the cafe, he increased the light value in the shadow area until the light was normal. This change was so skillfully made that it is not apparent as such, and actually simulates what really happens when a person walks into a shadow area—the contrast becomes less apparent as the eyes adjust themselves to the light condition.

As mentioned before, the matching of the race track footage was especially difficult because of the varying conditions under which the location footage was shot. All that was actually built at the studio was a section of railing and a ramp to match the slope of the ground. This is one instance in which the Los Angeles smog and haze worked in favor of the cameraman, neatly obscuring the Hollywood hills and hiding the Beverly Hills High School from view. The resultant shots match the location footage perfectly. A majority of the studio action was filmed against process plates provided by scenes shot on location, following the usual procedure of staging live action in front of translucent screens on which background scenes are projected by rear projection. Thus the authenticity of backgrounds was maintained throughout.

Micheline Prelle, outstanding French actress who plays the feminine lead in "Under My Skin," has a particular type of beauty which requires front lighting. This created a great problem in filming process shots, since too much front light would tend to "wash out" the projected background scene. After discussing the situation with E. J. Shyder, head of the 20th Century-Fox Process Department, and process cameraman Ed Hammeras, La Shelle worked out a system of using a very long focal length lens which allowed him to place the screen a good distance in back of the players without making the backgrounds seem large and out of proportion. In order to carry the focus sharp on both the players and the screen, it was necessary to over-light and stop the lens way down. By having the screen back far enough, La Shelle was able to light Miss Prelle with the flattering front lighting, carefully masking it off the other players, and lighting them from the same direction as the sun in the background scene. The resulting shots did justice to the feminine star, while yet preserving the realism of the French race track. So perfectly balanced are background density and subject lighting that the scenes have no appearance of being process shots.

Joseph La Shelle, A.S.C., who won a gold Oscar for his photography of "Laura" a few years ago, is considered one of Hollywood's exponents of mood lighting. In "Under My Skin," he has achieved an unmistakably foreign atmosphere; whether the scene shows a Paris boulevard by moonlight or a smoke-filled bistro, the lighting key and photographic mood are authentically slanted to reproduce the atmosphere of the actual situation. As always, La Shelle's lighting of the principal players is a superb achievement—he manages to bring out Miss



GUNSTOCK mount for Arriflex camera makes possible smoother shots without effect of body weave, als Mount was made specially for personal camera of Stanley Horsley, U-I's Special Photographic Dept head. Horsley uses camera on location scouting and for special shots requiring hand-held camera. Lamp housing on opposite side holds an 8FL for fill light.

Prelle's ethereal charm while at the same time lighting John Garfield to accentuate his ruggedness. "Under My Skin" is an outstanding example of the way in which technical and photographic skills are combined to do a prodigious task and yet are employed so skillfully and unobtrusively that attention is never distracted from the dramatic impact of the action.

ITALIAN LOCATION SCENES FILMED BY GASLIGHT

(Continued from Page 195)

had given the town a mayor who didn't appreciate what movies could do for his pet tourist attraction.

As darkness enveloped the sea, we saw in the distance what appeared to be hundreds of tiny lights dancing on the water, like bright stars. Inquiring of a hotel attendant, we were told they were the lights on fishermen's boats used for night fishing. Another added the interesting fact that the lights were gas-fed and extremely brilliant, and it struck me that here, perhaps, was the answer to the lighting problem for filming the Blue Grotto

The next morning I went down to see the fishermen and their boats. Perhaps fifty small but sturdy wooden rowboats were tied up in the waters of the bay. Mounted in the bow of each was a metal stanchion which rigidly supported a gas lamp fitted with Welsbach burners, similar to our Coleman gas lamps in this country. I was told each lamp gave light of 2000 candlepower.

Explaining the purpose for which they were wanted, I arranged for 20 of the boats and their men to appear at the Blue Grotto the next day. For our camera and crew, we engaged a sturdy motor launch, and another rowboat with oarsman in which Joseph Cotten and Miss Fontaine were to ride through the Grotto as the main part of the action.

Came time to shoot the scenes next day and a major problem faced us. The lamps, we found, threw a tremendous amount of light on the water but none on the walls of the cavern. Each lamp was fitted with a wide circular brim for a reflector. Moreover, the lamps were in vertical position and could not be adjusted to throw light upward on the rocky interior of the Grotto. We soon solved this, however, by having the men sit on one side of the boats, tipping the craft slightly so the lamps would tilt and throw light where we wanted it.

The light from the gas lamps was more than ample. I've forgotten exactly

(Continued on Page 221)

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A new B&H half-inch f/2.5 Comat lens, recent development of B&H, brings new sharpness of detail to 8mm. movies. Lens has click-stops and easy-to-read calibrations. It is interchangeable with other accessory lenses.

Weighing but 32 ounces, new camera is dove grey, abrasion-proof Tolex, a handsome, tough vinyl leatherette. With lens described, price is $129.50.

Eumig 88 Camera

Camera Specialty Co., 50 West 29th St., N. Y. 1, has been appointed distributor for the new Eumig 88 8mm. cine camera, manufactured in Europe. Equipped with f/1.9 coated lens, camera features built-in automatic photo-electric exposure meter — exposures and diaphragm settings are correct at all speeds. Other features include starting button lock, single frame exposure; patented film looping device; three speeds—8, 16 and 32 f.p.s. Price is $139.50. Carrying case $10.00 additional

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Flower Photography Booklet

Eastman Kodak Company has issued a new free pamphlet outlining the technique for making good photographs of flowers. Pamphlet is an attempt to reduce to as simple terms as possible the

steps involved in producing striking flower closeups with ordinary simple cameras. The data is helpful to cine camerasts, too. Booklet explains construction of simple frame which will tend to eliminate problems related to centering and focusing ond picture composition. Free copy may be obtained by writing Sales Service Division, Eastman Kodak Co., 343 State St., Rochester, N. Y.

Microphone Boom

The Camera Mart, Inc, 70 West 45th St, N. Y. City, announce their new improved Camart Mike Boom is available Improved model, known as TF-10, features a 13-foot extension arm, strut-wire reinforced, with an adjustable iron counterbalance weight to support any microphone In full elevated position, boom reaches height of 8 feet and has an efficient dependable lock for pan and tilt action. Mike may be completely rotated by handle at rear. Three-inch rubber-tired ballbearing wheels make for silent movement. Boom may be quickly folded for transportation in any automobile Price is $261.85.

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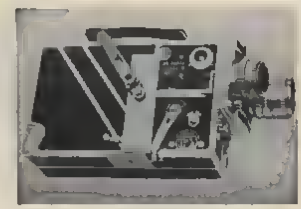

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Current Assignments of A.S.C. Members

Major film productions on which members of the American Society of Cinematographers were engaged as directors of photography during the past month

Columbia

• FLOYD CROSBY, "The Brave Bulls," with Mel Ferrer, Eugene Iglesias, Anthony Quinn, Jose Torvay and Charlita Robert Rossen, director

• BURNETT GUFFEY, "The Bedside Manner," with Larry Parks and Barbara Hale Eddie Buzzel director

• JOSEPH WALKER, "Harriett Craig," with Joan Crawford, Wendell Corey, K T Stevens, and William Bishop Vincent Sherman, director

• W HOWARD GREENE, "Al Jennings Of Oklahoma," with Dan Duryea, Gale Storm, William Bishop, Dick Foran Ray Nazzaro, director

• IRA MORGAN, "Chain Gang" with Douglas Kennedy Marjorie Lawrence, Emory Parnell Lew Landers director

Eagle-Lion

• LIONEL LINDEN, "Prehistoric Women," (Alliance Prod) with Laurette Luiz, Alan Nixon, Tony Devlin, Mara Lynn Gregg Tallas, director

Independent

• JACKSON ROSE, "Delayed Action," (Crystal Prod) with John Howard Edward L Cahn, director

• JACK CARDIFF, "Pandora And The Flying Dutchman," (Lewis Kaufman Prod , shooting in Europe) with James Mason, Ava Gardner Albert Lewin, director

• ROBERT DEGRASSE, "The First Legion," (Leo Prod) with Charles Boyer, William Demarest, Walter Hampden, Barbara Rush Douglas Sirk, director

• MARCEL LEPICARD, "Again Pioneers," (Protestant Film Comm) with Colleen Townsend, Regis Toomey, Russell Hicks, Sarah Padden William Beaudine, director

• PAUL IVANO, "The Second Face" (EJL Film Classics) with Dick Haymes Roland Young, Allen Jenkins, and Beatrice Pearson Edgar Ulmer, director

• PHIL TANNURA, "Hijacked," (Lippert Prod) with Jim Davis, Marcia Mae Jones, Paul Cavanaugh, David Bruce Sam Newfield, director

• KARL STRUSS, "The Return Of Jesse James," (Lippert Prod) with John Ireland, Ann Dvorak and Henry Hull Arthur Hilton, director

M-G-M

• ALFRED GILKS, "The Tender Hours," with Jane Powell, Ricardo Montalban, Louis Calhern Ann Harding and Phyllis Kirk Roy Rowland, director

• HAROLD ROSSON, "To Please A Lady," with Clark Gable and Barbara Stanwyck Clarence Brown, director

• CHARLES ROSHER, "Pagan Love Song," (Technicolor — shooting in Hawaii) with Esther Williams and Howard Keel. Robert Alton, director

• JOSEPH RUTTENBERG, "Cause For Alarm," with Loretta Young, Barry Sullivan, Bradley Nora, Margelo Gilmore Tay Garnett, director

• PAUL VOGEL, "Watch the Birdie," with Red Skelton, Arlene Dahl, Ann Miller Pamella Britton and Leon Ames Jack Donohue, director

• JOHN ALTON, "Grounds For Marriage," with Van Johnson Kathryn Grayson, George Murphy, and Paul Raymond Robert Z. Leonard, director

Monogram

• MARCEL LEPICARD, "Triple Trouble," with Leo Garcey, Huntz Hall and Lyn Thomas Jean Yarbrough, director

• HARRY NEUMANN, "Badmen Of Arizona," with Whip Wilson, Andy Clyde, and Nancy Saunders Wallace Fox, director

• WILLIAM SICKNER, "Bomba And The Hidden City," with John Sheffield, Sue England and Damien O'Flynn Ford Beebe, director

Paramount

• CHARLES LANG, "Branded," with Alan Ledd, Mona Freeman, and Charles Bickford. Rudy Mate, director

• VICTOR MILNER, "Dark City," (Hal Wallis Prodn) with Wendell Corey, Elizabeth Scott, Viveca Lindfors, and Don DeFore William Dieterle, director.

• DANIEL FAPP, "Beyond The Sunset," with Glenn Ford, Edmond O'Brien and Rhonda Fleming Leslie Fenton, director

• GEORGE BARNES, "Mr And Miss Anonymous," with Joan Fontaine, Ray Milland, and Teresa Wright George Stevens, director.

• CHARLES LANG, "A Relative Stranger," with Gene Tierney, John Lund, and Miriam Hopkins Mitchel Leisen, director

R.K.O.

• HARRY WILD, "His Kind Of Woman," with Robert Mitchum, Jane Russell, and Vincent Price John Farrow, director

• NICHOLAS MUSURACA, "Seven Witnesses," with Gig Young, Mary Anderson, John Kellogg George Archinbaud, director

• J ROY HUNT, "Rio Grande Patrol," with Tim Holt, Richard Martin, Jane Nigh Lesley Selander, director

20th Century-Fox

• CHARLES G CLARKE, "I'll Get By," (Technicolor) with June Haver, William Lundigan, Harry James, Gloria de Haven and Dennis Day Richard Sale, director

• HARRY JACKSON, "American Guerillas In The Philippines," (Technicolor — shooting in the Philippines) with Tyrone Power, Micheline Prelle, Tom Ewell, Jack Elam and Tommy Cook. Fritz Lang, director

• MILTON KRASNER, "All About Eve," with Bette Davis, Anne Baxter, Celeste Holm and George Sanders Joseph Mankiewicz, director

• JOSEPH LASHELLE, "Old 88o," with Dorothy Maguire, Burt Lancaster, Edmund Gwenn and Millard Mitchell Edmund Goulding, director

• LEON SHAMROY, "Trumpet To The Morn," with Linda Darnell, Corbel Wilde, Joseph Cotten and Jeff Chandler Robert Wise, director

• WINTON HOCH, "The Halls Of Montezuma," (Technicolor — shooting in Mexico) with Richard Widmark, Reginald Gardiner, Skip Homeier. Lewis Milestone director

• LUCIEN BALLARD, "I'd Climb The Highest Mountain," (Technicolor) with Susan Hayward, Wm Lundigan, Rory Calhoun, Lynn Bari, Ruth Donnelly Henry King, director.

United Artists

• FRANK PLANER, "The Dungeon," with John Ireland, Mercedes McCambridge, James Bartoo E A. Dupont, director

• ARTHUR MILLER, "Cost Of Living," (S Spiegel Prod) with Van Heflin Joe Losey, director

• WILLIAM SNYDER and JACK GREENHALGH, "New Mexico," (In Color) (Allen-Justman Prod) with Lew Ayres, Marilyn Maxwell, Jeff Corey, Donald Buka Irving Reis, director

• GUY ROE, "Sound Of Fury," (Robt Stillman Prod.) with Frank Lovejoy, Kathleen Ryan, Richard Carlson, Lloyd Bridges and Adele Jergens Cyril Endfield, director

Universal-International

• RUSSELL METTY, "Desert Hawk," (Technicolor) with Yvonne DeCarlo, Richard Greene, Lois Andrews and Lucille Barkley Frederick de Cordova, director

• CLIFF STINE, "The Milkman," with Donald O'Connor, Jimmy Durante Piper Laurie and Joyce Holden Charles Barton, director

• IRVING GLASSBERG, "Shakedown," with Howard Duff, Peggy Dow, Brian Donlevy, Bruce Bennett Joseph Pevney, director

• WILLIAM DANIELS, "Harvey," with James Stewart, Josephine Hull, Peggy Dow, Charles Drake Kenny Koster, director

• MAURY GERTSMAN, "Frenchie," with Joel McCrea, Shelly Winters, Paul Kelly, and Elsa Lanchester. Louis King, director.

• GEORGE ROBINSON, "Abbott And Costello In The Foreign Legion," with Abbott and Costello, Patricia Medina, Walter Slezak and Douglas Dumbrille. Charles Lamont, director

• HAL MOHR, "Woman On The Run," (Fidelity Prodn) with Ann Sheridan, Dennis O'Keefe, Robert Keith, and Frank Jenks Norman Foster, director

• RUSSELL METTY, "Wyoming Mail," (Technicolor) with Stephen McNally, Alexis Smith and Charles Kemper Reginald LeBorg, director.

• HENRY FREULICH, "Under The Gun," with Richard Conte, Audrey Totter, and John McIntyre Ted Tetzlaff, director.

• IRVING GLASSBERG, "Kansas Raiders," (Technicolor) with Audie Murphy, Brian Donlevy, Marguerite Chapman, and Scott Brady Ray Enright, director.

Warner Brothers

• WILFRID CLINE, "Tea For Two," (Technicolor) with Doris Day, Gordon MacRae, Eve Arden, and S Z Sakall. David Butler, director

• TED MCCORD, "The Breaking Point," with John Garfield and Patricia Neal Michael Curtiz, director

• PEVERELL MARLEY, "Kiss Tomorrow Goodbye," (Cagney Prod) with James Cagney, Luther Adler, Steve Brody, Barbara Payton, and Helena Carter Gordon Douglas, director

• ERNEST HALLER, "Dallas," (Technicolor) with Gary Cooper, Ruth Roman, Steve Cochrane and Raymond Massey Stuart Heisler, director

BOOKS YOU'LL WANT TO READ

Quarterly Review of Lote Photographic Books

Handbook Of Basic Motion Pictum Techniques

By Emil Brodbeck. McGraw-Hill Book Co., N. Y. $5.95.

During the war, Emil Brodbeck was instructor for the Signal Corps Photographic Center Motion Picture School He did considerable combat photography in Burma and a good deal of his combat footage appeared in *Objective Burma*, starring Errol Flynn.

After the war, Brodbeck founded Celluloid College, a school for cinematographers; also produced a number of instructional films on how to make movies. These films are available as an adjunct to this book. If you have a camera, film, an exposure meter and a copy of this book, you possess all the materials necessary to make successful movies. No matter how expert you become, the basis for all your movie making operations is to be found in *Handbook of Basic Motion Picture Techniques.*

16mm Sound Motion Pictures

William H Offenhauser, Jr., Interscience Publishers, Inc., New York. $10.00.

An authoritative, specialized and readable technical guide through all the phases and aspects of the 16mm film field and its applications. Written by Wm. H Offenhauser, Jr., who has had more than 20 years' experience as a physicist and engineer in the 16mm. industry. During the war he was consultant to the Signal Corps. He formerly built and installed the first sound film recording equipment used by the Army.

His new book, 6 by 9 inches in size, contains 592 pages, 123 illustrations and 30 tables. Sixteen chapters take the reader through the entire gamut of 16mm. film making operations and concludes with an informative chapter on 16mm. films for television.

High Speed Photography

Society of Motion Picture Engineers, New York City. $1.50.

This 129 page illustrated booklet consists of papers presented at the symposium on high-speed photography during the October, 1948 convention of the Society. It describes various high-speed cameras as well as techniques used by government and industrial agencies.

Specific topics discussed in the booklet include electrical flash photography and a new high speed stroboscope, lamps for high-speed photography; motion picture equipment for very high-speed photography; methods of analyzing high-speed photographs and the uses of high-speed photography in the armed forces, automotive and other industries and research.

American Cinematographer Handbook and Refemnce Guide

Compiled and published by Jackson J. Rose, 1782 N. Orange Dr., Hollywood $5.00.

This convenient pocket guide, which has served cinematographers, both amateur and professional for years, has been expanded to 325 pages and now contains, in addition to charts and data on technical phases of cine cameras, projectors and films, data on such new techniques as magnetic recording, translucent backgrounds, films for television, etc.

SCENES FILMED BY GASLIGHT

(Continued from Page 217)

what lens stop we used, but the results were perfect. Latensification of the film was not required. Nor did we use any special film — just Plus-X.

Our biggest problem was the zeal of the boatmen As filming progressed, there were the usual retakes with attendant instructions to the various persons involved. Soon every boatman was shouting instructions, first to one another then to Joseph Cotten and Miss Fontaine, and finally to the director and crew For a few minutes the bedlam of shouting, whistling, etc., was terrific! We simply sat down, plugged our ears, and waited for the Italians to simmer down, finally concluded shooting without further incident.

Sometimes improvisations like this wind up on the cutting-room floor. I am happy to know that these scenes are in the picture as released, and because this is probably the first time that the Blue Grotto has ever been recorded in motion pictures, it is something to look for when "September Affair" comes to your theatre screen.

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at The American Cinematographer are available for most months of 1948 and 1949. Many earlier issues also available. The December issues contain annual index as guide to content of each year's 12 issues. Price of back issues in U.S., 30c. Foreign 40c.

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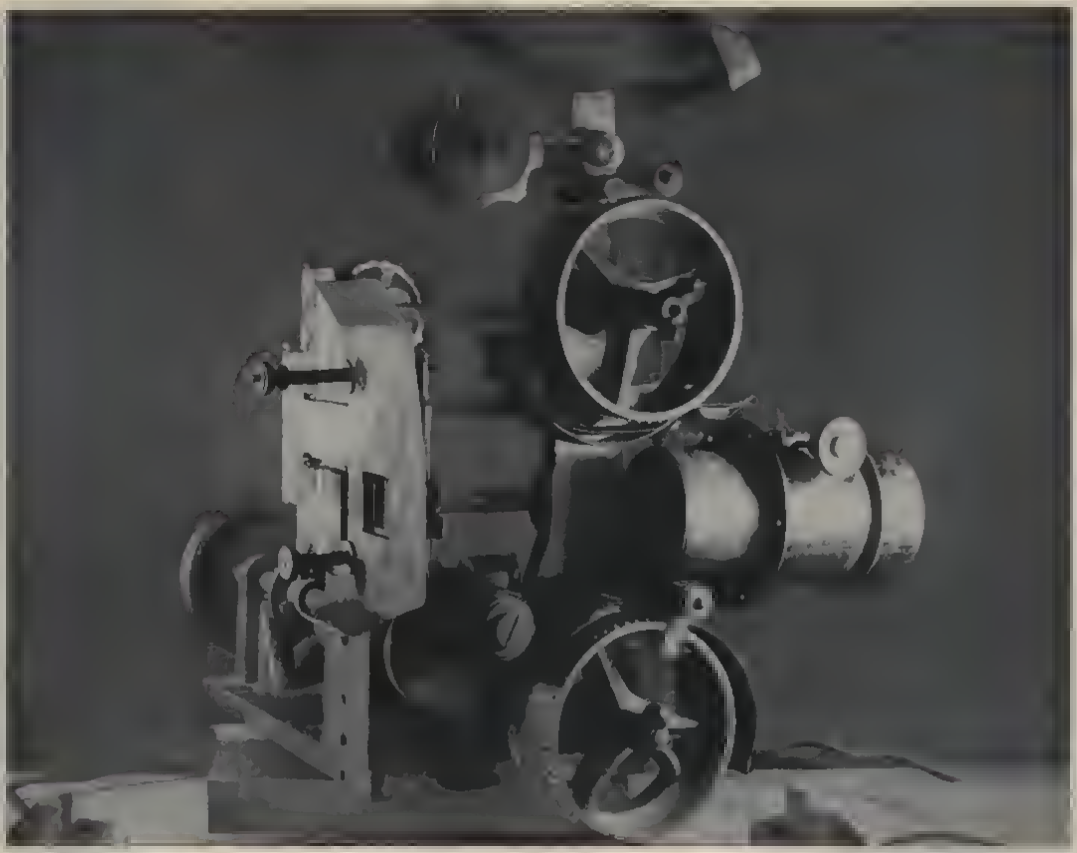

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